



The map area lies along the west side of the San Joaquin Valley and includes the Quaternary alluvial fans of the western part of the valley, as well as a portion of the outcrops of the Franciscan Complex to the east of the valley. The area includes strata ranging in age from Late Cretaceous to Holocene and includes the type sections of the Pancho Viejo (east) and Tule Formations. Field mapping of bedrock units was guided by reference to previously published geologic maps of the area (e.g., Calkins, 1923; Bouslog, 1975). The mapping, done on air photos (mostly at a scale of about 1:30,000), was transferred to the 1:24,000 scale base map used for this report.

The unconsolidated and semi-consolidated sediment of the Tule Formation and the unnamed Quaternary alluvial deposits are mapped as a single unit and are difficult to differentiate. The Quaternary deposits are divided into alluvial fans, alluvial channels, and alluvial flats. The units are determined from geomorphic and pedologic criteria such as (1) relative topographic position in a sequence of these alluvial units, (2) relative degree of soil development, soil-profile development, and (3) relative degree of surface modification, including the development of microlife or soil crusts.

The Tule Formation has been deformed, but not as much as the Franciscan Complex. The Tule Formation, however, can be seen to overlap older units. Younger alluvial units are not noticeably deformed, except for a minor increase in dip angle toward the west. The Tule Formation is mapped on the basis of physiography and degree of soil development are the principal criteria used in mapping these younger units. The occurrence of the Tule Formation on the alluvial alluvium suggests that the veneer of Holocene age alluvium covers most of the alluvial surface of the Tule Formation. The Tule Formation is mapped adjacent to this map area on the northwest was discussed by Bouslog (1975).

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